INDEX

FUNCTIONAL ANALYSIS AND ITS APPLICATIONS

Volume 5, Numbers 1-4, 1971

FUNCTIONAL ANALYSIS AND ITS APPLICATIONS
Volume 5, Numbers 1-4, 1971
(A translation of Funktsional'nyi Analiz i Ego Prilozheniya)

A

Andreev, E. M. - 265
Arnol'd, V. I. - 169

B

Belopol'skii, A. L. - 151
Bernshtein, I. N. 1, 89
Birman, M. Sh. - 56
Brushlinskaya, N. N. - 177

D

Dimitrov, D. B. - 158

E

Éliashberg, Ya. M. - 156

F

Faddeev, L. D. - 280
Fel'dman, I. A. - 262

G

Gabrielov, A. M. - 318
Gel'fand, I. M. - 1
Gel'fand, S. I. - 1
Geronimus, A. Yu. - 188
Ginzburg, Yu. P. - 197
Gokhberg, I. Ts. - 324
Golodets, V. Ya. - 118, 250
Golovin, V. D. - 320
Golubeva, V. A. - 153
Gorbachuk, M. L. - 9, 322
Gorbachuk, V. I. - 322
Gordon, A. Ya. - 19
Grigor'ev, B. V. - 125
Gromov, M. L. - 156
Grushin, V. V. - 58
Gurarii, V. I. - 60
Gurevich, D. I. - 63

I

Ismagilov, R. S. - 209

K

Kats, G. I. - 65
Kats, V. G. - 111
Katsnel'son, V. É. - 31
Kharazov, D. F. - 345
Khelemskii, A. Ya. - 84
Khenkin, G. M. - 70
Kogan, B. L. - 229
Koronkevich, A. I. - 65
Krasnosel'skii, M. A. - 206, 272
Krein, M. G. - 136, 217
Krygin, A. B. - 147
Kuznetsov, N. G. - 252

L

Langer, G. K. - 136, 217, 329
Lebed', B. Ya. - 254
Levchenko, V. I. - 324
Levin, B. Ya. - 19
Luzin, V. I. - 332

M

Markus, A. S. - 334
Maz'ya, V. G. - 256
Meletidi, M. A. - 60
Mil'man, V. D. - 288
Mironov, O. K. - 68
Mityagin, B. S. - 70
Miyamoto, M. - 336

N

Nekhoroshev, N. N. - 338
Nemirovskii, A. S. - 72
Nikolov, A. V. - 161
Novodvorskii, M. E. - 74

O

Oseledets, V. I. - 233
Ovcharenko, I. E. - 77
Ovchinnikov, S. V. - 79

P

Plamenevskii, B. A. - 256
Pokornyi, Yu. V. - 272
Popov, V. L. - 265

R

Rokhlin, V. A. - 39
Ronkin, L. I. - 343
Rozenfel'd, B. I. - 340
Rutitskii, Ya. B. - 332

S

Sakhnovich, L. A. - 49
Sapronov, Yu. I. - 296
Semenov, S. M. - 164
Sharapov, V. G. - 246
Shtern, A. I. - 311
Simonenko, I. B. - 81
Sinai, Ya. G. - 185
Solomyak, M. Z. - 56
Stepin, A. M. - 167, 237
Sultenko, A. V. - 301

T

Timan, A. F. - 259
Tulovskii, V. N. - 241

V

Vasershtein, L. N. - 102
Veisfeiler, B. Yu. - 111
Vershik, A. M. - 182
Volkovysskii, K. L. - 185

Z

Zabreiko, P. P. - 206, 272
Zakharov, V. E. - 280
Zakharyuta, V. P. - 326
Zhikov, V. V. - 26

FUNCTIONAL ANALYSIS AND ITS APPLICATIONS
Volume 5, Numbers 1-4, 1971

(A translation of Funktsional'nyi Analiz i Ego Prilozheniya)

Volume 5, Number 1 January-March, 1971

	Engl.	Russ.
Structure of Representations Generated by Vectors of Highest Weight—I. N. Bernshtein, I. M. Gel'fand, and S. I. Gel'fand	1	1
Self-Adjoint Boundary Problems for a Second-Order Differential Equation with Unbounded Operator Coefficient—M. L. Gorbachuk	9	10
On the Division of Quasi-Polynomials—A. Ya. Gordon and B. Ya. Levin	19	22
Remarks on Compactness Conditions Related to the Work of M. I. Kadets on Integration of Abstract Almost-Periodic Functions—V. V. Zhikov	26	30
Exponential Bases in L^2—V. É. Katsnel'son	31	37
Two-Dimensional Submanifolds of Four-Dimensional Manifolds—V. A. Rokhlin	39	48
The Invariance Principle for Generalized Wave Operators—L. A. Sakhnovich	49	61
On the Asymptotic Spectrum of "Nonsmooth" Elliptic Equations—M. Sh. Birman and M. Z. Solomyak	56	69
On the Proof of the Discreteness of the Spectrum of One Class of Differential Operators in R^n—V. V. Grushin	58	71
On Estimates of the Coefficients of Polynomials Approximating Continuous Functions—V. I. Gurarii and M. A. Meletidi	60	73
On a Problem of L. Schwartz—D. I. Gurevich	63	76
Frobenius' Theorem for Functions of Commutative and Anticommutative Arguments—G. I. Kats and A. I. Koronkevich	65	78
Reduction of Families of Quadratic Forms to Diagonal Form—O. K. Mironov	68	81
The Absence of a Linear Resolvent Operator in Problems in the Theory of Holomorphic Functions—B. S. Mityagin and G. M. Khenkin	70	83
On a Certain Chain of Algebras on a Hilbert Sphere—A. S. Nemirovskii	72	85
On Certain Stationary Vectors in Infinite-Dimensional Representations of Chevalley Groups—M. E. Novodvorskii	74	87
On the Expansion of Hermitian Forms and Symmetric Operators—I. E. Ovcharenko	77	89
Positive-Definite Functions on Chevalley Groups—S. V. Ovchinnikov	79	91
On the Question of the Solvability of Bisingular and Polysingular Equations—I. B. Simonenko	81	93
The Torsion Product of Modules Over Banach Algebras—A. Ya. Khelemskii	84	95

Volume 5, Number 2 April-June, 1971

Modules over a Ring of Differential Operators. Study of the Fundamental Solutions of Equations with Constant Coefficients—I. N. Bernshtein	89	1
Stable Rank of Rings and Dimensionality of Topological Spaces—L. N. Vasershtein	102	17
Irreducible Representations of Lie p-Algebras—B. Yu. Veisfeiler and V. G. Kats	111	28
Hyperfinite Factors of Types II_∞ and III—V. Ya. Golodets	118	37
Characteristic Classes of Principal G-Stratifications with Coefficients Belonging to Sheafs of Germs of Differential Forms—B. V. Grigor'ev	125	45

	Engl.	Russ.
Defect Subspaces and Generalized Resolvents of an Hermitian Operator in the Space $\Pi_\varkappa$ —M. G. Krein and G. K. Langer	136	59
Continuation of Diffeomorphisms Retaining Volume—A. B. Krygin	147	72
Scattering Problems for Two Spaces with an Unbounded Identification Operator —A. L. Belopol'skii	151	77
Multivalued Analytic Function Defined by an Integral on a Hypersphere—V. A. Golubeva	153	79
Nonsingular Mappings of Stein Manifolds—M. L. Gromov and Ya. M. Éliashberg	156	82
A Remark on Gel'fand's Integral—D. B. Dimitrov	158	84
Complete Selection of Commutating Operators for Ladder Representations of Lie Algebras of the Group U(6, 6)—A. V. Nikolov	161	86
Algebras on a Hilbert Space which are Generated by Quadratic Forms—S. M. Semenov	164	89
Cohomologies of Automorphism Groups of a Lebesgue Space—A. M. Stepin	167	91

Volume 5, Number 3 July-September, 1971

Distribution of Ovals of the Real Plane of Algebraic Curves, of Involutions of Four-Dimensional Smooth Manifolds, and the Arithmetic of Integer-Valued Quadratic Forms—V. I. Arnol'd	169	1
Finiteness Theorem for Families of Vector Fields in the Neighborhood of a Poincaré-Type Singularity—N. N. Brushlinskaya	177	10
Continuum of Pairwise Nonisomorphic Diadic Sequences—A. M. Vershik	182	16
Ergodic Properties of an Ideal Gas with an Infinite Number of Degrees of Freedom —K. L. Volkovysskii and Ya. G. Sinai	185	19
Grothendieck Topology and the Theory of Representations—A. Yu. Geronimus	188	22
Almost Invariant Spectral Properties of a Contraction and Multiplicative Properties of Analytic Operator-Functions—Yu. P. Ginzburg	197	32
Solvability of Nonlinear Operator Equations—P. P. Zabreiko and M. A. Krasnosel'skii	206	42
Unitary Representations of the Group of Diffeomorphisms of a Circle—R. S. Ismagilov	209	45
Defective Subspaces and Generalized Resolvents of an Hermitian Operator in the Space $\Pi_\varkappa$—M. G. Krein and G. K. Langer	217	54
Double Completeness of the System of Eigenfunctions and Associated Functions of the Regge Problem—B. L. Kogan	229	70
Two Nonisomorphic Dynamical Systems with the Same Simple Continuous Spectrum —V. I. Oseledets	233	75
On Entropy Invariants of Decreasing Sequences of Measurable Partitions —A. M. Stepin	237	80
Distribution of the Eigenvalues for Differential Operators with Constant Coefficients —V. N. Tulovskii	241	85
Markov Endomorphisms of Lebesgue Space—V. G. Sharapov	246	91
BRIEF COMMUNICATIONS		
Tensor and Cross Products of Factors of Type III—V. Ya. Golodets	250	96
Hypoelliptic Convolution Equations and Gevrey Classes—N. G. Kuznetsov	252	98
Estimates of Curvature of Bergman Metric, Invariant under Biholomorphic Mappings —B. Ya. Lebed'	254	100
Problems with Oblique Derivatives in Regions with Piecewise Smooth Boundaries —V. G. Maz'ya and B. A. Plamenevskii	256	102
The ε-Entropy of Arzelà Compacta—A. F. Timan	259	104
The Radiative Transport Equation and Operator Wiener-Hopf Equations—I. A. Fel'dman	262	106

Volume 5, Number 4 October-December, 1971

Stationary Subgroups of Points of General Position in the Representation Space of a Semisimple Lie Group—E. M. Andreev and V. L. Popov 265 1
On a Class of Linear Positive Operators—P. P. Zabreiko, M. A. Krasnosel'skii, and Yu. V. Pokornyi 272 9
Korteweg-de Vries Equation: a Completely Integrable Hamiltonian System —V. E. Zakharov and L. D. Faddeev. 280 18
New Proof of the Theorem of A. Dvoretzky on Intersections of Convex Bodies —V. D. Mil'man 288 28
Local Invertibility of Nonlinear Fredholm Mappings—Yu. I. Sapronov 296 38
The Problem of Scattering of Electromagnetic Waves by a Plasmoid—A. V. Sultenko. 301 44
Connection between the Topologies of a Locally Bicompact Group and Its Dual Space —A. I. Shtern 311 56

BRIEF COMMUNICATIONS
Formal Relations between Analytic Functions—A. M. Gabrielov 318 64
On Spaces of Local Cohomologies of Complex Analytic Manifolds—V. D. Golovin . . . 320 66
Self-Adjoint Boundary Problems with Discrete Spectrum Generated by the Sturm-Liouville Equation with Unbounded Operator Coefficient—V. I. Gorbachuk and M. L. Gorbachuk 322 67
Projection Method for Solving Degenerate Discrete Wiener-Hopf Equations —I. Ts. Gokhberg and V. I. Levchenko 324 69
Isomorphism of Spaces of Holomorphic Functions of Several Complex Variables —V. P. Zakharyuta 326 71
Generalized Coresolvents of a $\mathscr{H}$-Isometric Operator with Unequal Defect Numbers —G. K. Langer 329 73
One Class of Functional Spaces—V. I. Luzin and Ya. B. Rutitskii 332 76
Completeness of the Part of Characteristic and Adjoined Vectors for Certain Nonlinear Spectral Problems—A. S. Markus 334 78
A Remark on the Analyticity of Correlation Functions in the Ising Model of Gases —M. Miyamoto 336 80
Behavior of Hamiltonian Systems Close To Integrable—N. N. Nekhoroshev 338 82
Cohomologies of Some Infinite-Dimensional Lie Algebras—B. I. Rozenfel'd 340 84
Theory of Symmetrizable Operators with Discrete Spectrum—D. F. Kharazov. 345 87
The Completeness of the System of Functions $e^{i\langle\lambda,x\rangle}$ and the Real Sets of Uniqueness of Entire Functions of Several Variables—L. I. Ronkin 343 86
Theory of Symmetrizable Operators with Discrete Spectrum—D. F. Kharazov. 345 87

INDEX
Author Index, Volume 5, Numbers 1-4, 1971 351
Tables of Contents, Volume 5, Numbers 1-4, 1971 352